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ABSTRACT

This paper examines the thesis that family support is capable of influencing rehabilitation outcomes, and focuses on the functions of support in relationship to adaptation to chronic illness or disability and quality of independent living including work. The document reviews published empirical studies on family support in rehabilitation including observational and nonrandomized intervention studies, case studies and surveys, and randomized controlled trials of support interventions. Methodological problems associated with some of these studies are discussed. It is concluded that the literature on this topic supports the notion that rehabilitation outcomes such as treatment compliance, perceived psychological well-being, employment, and mortality are affected by supportive family involvement and participation. It is noted that some of the studies suffered from methodological problems that reduced the confidence attachable to their findings, and that linkages between the support-outcome relationship remain nonspecific. Evidence suggests that rehabilitation programs, interventions, and strategies aimed at improving the psychosocial side of rehabilitation can form an appropriate research and policy agenda. (BHK)

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FAMILY SUPPORT IN REHABILITATION -- THE 'SOFT' WAY TO IMPROVE OUTCOMES

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ABSTRACT

This paper examines the thesis that family support is capable of influencing rehabilitation outcomes. The focus of the paper is on the functions of support in relationship to adaptation to chronic illness or disability and quality of independent living including work. This paper reviews published empirical studies on family support in rehabilitation including observational and nonrandomized intervention studies, case studies and surveys, and randomized controlled trials of support interventions. Methodological problems associated with some of these studies are discussed. The authors conclude that the literature on this topic supports the notion that rehabilitation outcomes such as treatment compliance, perceived psychological well-being, employment, and mortality are affected by supportive family involvement and participation. The mechanisms by which support factors operate, however, remain remarkably nonspecific.

INTRODUCTION

This paper reviews published studies of family support in rehabilitation within a broad context. The general objective of the review is to consider the status of the evidence relating to the effectiveness of family support in improving psychobiologic, psychosocial, and vocational outcomes in rehabilitation. The focus of the paper's discussion is the functions of family support since these have emerged during the past decade as important predictors of differences in adjustment to chronic illness, disability, and quality of independent living as well as other rehabilitation outcomes such as employment.

At the end of this paper, it is argued that traditional approaches to rehabilitation counseling and services have been based on an outmoded analytic paradigm of autonomy. Adopted from medicine, the autonomy paradigm assumes, fundamentally, that rehabilitation services ought always to serve the interests of the client. The implication of this prevalent rehabilitation practice is that interests, beliefs, values, and needs of family members should not compete or take precedence. This paradigm ignores both

the multifactorial nature of contributors to adaptation to chronic illness or disability and the status of rehabilitation as a biopsychosocioecological process. Acknowledging that disability impacts the entire family encourages focusing on relationships between family support functions and rehabilitation outcomes as a direction to improve future rehabilitation research, policies, and programs.

A CONTEXT FOR FOCUSING ON FAMILY SUPPORT-REHABILITATION OUTCOME RELATIONSHIPS

Interest in family involvement in rehabilitation has been evident for at least 30 years. Wright (1960) noted that parents are pivotal figures in the eventual psychological fate of their children: ... "their most important contribution is family support, conveying to children in behavior and words that they are loved, respected and wanted" (p. 288) Safilios-Rothchild (1970) described studies in which marital status, gender, and numbers of dependents were shown to be related to rate of recovery, resumption of family role, and rehabilitation (Deutch & Goldston, 1960; Gibson & Ludwig, 1968). She also examined studies that

demonstrated that overprotective family ties hindered rehabilitation (Litman, 1966).

Family norms and resources influence health behavior. As medical sociologists Litman (1974) and Freidson (1960) noted, a family's adjustment to a member's chronic illness or disability has a significant impact on that member's motivation for recovery and rehabilitation.

DiMatteo and DiNicola (1982) describe family support as a facilitating link in the intention-behavior chain, enhancing compliance with medical treatment, prescribed exercise, diet and fitness programs, home dialysis, use of orthotic appliances, and other preventive and rehabilitative regimens (pp. 217-218).

Family functioning, especially with regard to communication, role patterns, and problem solving have all been shown to be important mediators of adjustment for persons with long term mental illness and substance abuse disorders.

Current Issues

In recent years, conceptual articles concerning family participation in rehabilitation have grown

exponentially. As the numbers have increased, so has consensus on the importance of families' involvement in the rehabilitation process (Kerosky, 1984; Dew & Phillips, 1990; Dew, Phillips & Reiss, 1989; Herbert, 1989; Cook & Ferritor, 1985).

Several factors and trends are provoking renewed interest in and recognition of the critical role played by families in the rehabilitation process. Movements toward independent living and advocacy are encouraging interdependence, empowering partnerships between professionals and consumers, families, and significant others. Recent health care crises brought about by AIDS, Alzheimers, cocaine babies, survivors of head or spinal cord injuries, and an aging population more functionally limited because of chronic illness have refocused attention on implications of the impact of disability on both individuals and families or significant others. Traditionally, families in this culture have assumed the principal caregiver role as a moral obligation; now, however, situation-specific circumstances are forcing them to make difficult decisions, to confront hard questions, the implicit answer to which is, "How far can members of this family

be asked to compromise the quality of their lives so that the member with a disability can receive a certain treatment or device that may improve the quality of his/her life?" (Hardwig, 1990)

In rehabilitation today, supported and transitional employment opportunities bring the autonomy paradigm face-to-face with a competing one of interdependence. One is confronted with the reality that relinquishing disability benefits, for example, would be in the client's self interest in some situations, but not in the family's best interest vis a vis autonomous functioning.

All of these factors - competing paradigms, changing ethical and moral expectations of the family, and growing awareness of the impact of chronic illness and disability - all provoke renewed interest in the family's role in the rehabilitation process.

DEFINITIONS

The phenomenon of social support has been variably defined and measured during the past 20 years. Although consensual definitions of social support are lacking, most writers agree that social support is related to health quantity and perceived quality of

life (Sarason, Sarason & Pierce, 1990). Longitudinal and retrospective field studies and laboratory experiments of animals and people offer evidence that supportive social relationships can promote human health and well-being and reduce exposure to stress, and can buffer the impact of stress or other hazards on health outcomes (House, 1981; Cassell, 1976; Berkman & Syme, 1979).

While many studies define social support in unilluminating ways, noted authorities in the field have contributed more explicit definitions:

> "Information leading one to believe that s/he is cared for, loved, esteemed, and valued and belongs to a network of communication and mutual obligation" (Cobb, 1976)
>
> "Interpersonal transactions involving affect, affirmation, and aid (Kahn & Antonucci, 1980)
>
> "Emotional concern, instrumental aid, information or appraisal (House, 1981)
>
> "The degree to which a person's basic social needs (e.g., affection, esteem or approval, belonging, identity and acceptance, security, sympathy and understanding) are gratified through interaction with others. These needs may be met by either the provision of socioemotional aid or the provision of instrumental aid such as advice, information, or help with family or work responsibilities" (Kaplan, Cassel & Gore, 1977, 47-48)

These authorities imply that social support can be conceived of and measured as general or problem-focused, as objective or subjective, and can be received from many different individuals. Distinctions between general and specific, objective and subjective support are important because, in some circumstances, a low correlation may exist between support provided by others and an individual's perception of that support. According to Sarason, Sarason, and Pierce (1990), to be truly effective, support received must match the individual's perceived need for it. As used herein, "support" incorporates all potential forms suggested by the foregoing authors and includes "family" as a source of support.

"Family" means those who are close to the rehabilitation consumer, the person with a disability. Defined in this manner, "family" may include companions and close friends as well as those related by blood and marriage. All their lives are intertwined by virtue of their closeness. Rehabilitation decisions about one individual irremediably affect more than just one and have different impacts on the family. Families' interests become relevant for consideration by

rehabilitation professionals regardless of whether or not consumers actively consider them. Clients' decisions have ethical and moral consequences for the lives of those who are close.

FOCUS OF REVIEW

Literature reviewed in this article reflects broad disability categories, demographic characteristics, types of interventions, and outcomes that are representative of family involvement in the rehabilitation process.

The approaches used in empirical studies of the family support-rehabilitation outcome phenomenon have assumed one of two general approaches: The first has emphasized the quality of family (and social) relationships and probed the adequacy of psychosocial exchanges between and among members of this group. Adequate measures are then linked, directly or indirectly, to rehabilitation outcomes such as adjustment to disability, employment, independent living, and the like. Another approach, one more macroscopic, has treated successful outcome as a by-product of consumers' participation in a variety of social aggregates such as the family, self-help groups,

church, and advocacy activities. From this perspective, successful social integration into normalized environments is tantamount to support. Both approaches are included in this review; but, the predominant focus is on the former perspective.

ORGANIZATION OF THE REVIEW

Four types of studies of family support - rehabilitation outcome relationships are reviewed in this paper: (1) Observational studies including randomized and nonrandomized intervention studies; (2) surveys; (3) case studies; and (4) randomized controlled trials of interventions aimed at improving the support-outcome relationship. These are grouped into four major disability categories - Physical Disabilities, Long Term Mental Illness and Related Disorders, Psychoactive Substance Abuse Disorders, and Developmental Disabilities.

Studies that met the inclusion criteria were analyzed with respect to certain key theoretical and empirical dimensions represented by column headings in Tables 1 through 4. These include focus, methodology, measures of support, and outcomes. Special attention

was directed to measurable objectives, familiar instrumentation, and replicable interventions.

Sources of the Research Review

The sources of family support - rehabilitation outcome research are varied. Relevant studies appear in behavioral, social, and medical sciences journals as well as in education materials.

The authors conducted various computer searches including Medline, Psychological Abstracts, Sociological Abstracts, ERIC, Dissertation Abstracts, and Mental Health Abstracts. A library search of current rehabilitation and rehabilitation-related journal issues was undertaken. Major funding sources for research in this area (NIDRR, NIMH, NIDA) were contacted for information about recently completed studies or those in progress. Major rehabilitation centers which had engaged in family-related studies in the past were contacted as well. Initially, this process yielded more than 13,000 publications from 1980 to the present; fewer than 50 of these were data-based studies.

Limits of the Review

Some areas of study were not addressed in depth in this review. These were (a) family interaction research, (b) psychoeducation studies, (c) self-help groups, (d) family participation in psychotherapy or treatment, as a clinical intervention distinct from rehabilitation, for substance abuse, (e) marital and family therapy, (f) social support research per se, and (f) conceptual and expository writings about needs, rationales, and models for involving families in rehabilitation.

These areas were excluded because they represent areas for more specialized inquiry and have been dealt with before.

Family Involvement in Chronic Illness and Physical Disability

This section is comprised of 17 studies concerning family/support factors that link treatment compliance, adjustment to physical disability, control of the disease process, and perceived psychological well-being. The buffering theme runs throughout most of them. The majority were observational in design.

(Insert Table 1 Here)

Power and Dell Orto (1980) included a broad sampling of works concerning the family's role in rehabilitation of persons with physical disabilities. One of their basic themes was that the family constitutes a substantial portion of one's environment and, as such, establishes a "climate" for motivation for rehabilitation.

Arnold and Orozco (1988) noted that in the Mexican American culture the family has been described as the single most important unit. In their study of acculturation factors, a six-month followup of 38 vocational rehabilitation clients indicated a significant relationship between a family environment in which family members felt free to act and express feelings openly and progress toward vocational potential.

Following the employment outcome theme, Roessler and Bolton (1985) recommended that training of families to support and assist clients in their job-seeking process be included in rehabilitation programs.

Ault (1978), Carroll (1961), Morrison (1982), Schulz (1980), and Winkler (1975) indicated that an individual's adjustment to the loss of sight is closely

related to the attitudes, behaviors, and perceptions of his or her family. Another study of the impact of family attitudes toward blindness indicated that the family is a major contributing factor to securing gainful employment and successful rehabilitation outcomes (Moore, 1984). Unfortunately, there appears to be minimal primary data focusing on the role of family members in programs and services for the visually impaired (Dumas & Sadowsky, 1984).

Implications supporting the efficacy of family involvement are cited by Keitel, Cramer and Zevon, (1990) in their study of spouses of cancer patients. Spouses are affected in the areas of emotional status, household management, and the marital relationship. Curtiss (1981) indicated that spouses of urologic cancer patients were found to feel more hopeless and experience more anxiety than the patients themselves. Keitel, Cramer and Zevon (1990) found, "Coping characterized by escape and avoidance has been correlated positively with psychological distress for cancer surgery patients and their spouses" (p. 165). Simonton (1984) described an anger-guilt-helping spiral in which over-burdened family members, perhaps

neglecting their own emotional and physical needs, may eventually become resentful.

A more recent study demonstrated that strongly connected, cohesive families may not be supportive; rather, strongly coordinated family relationships may have adverse consequences on the physical well-being of a member who has a chronic illness or disability. Reiss, Gonzalez, and Kramer (1986) worked with 23 families, each having an adult member in end-stage renal failure. In those families that devoted their energies to management of the disability, to the exclusion of outside interests and other members needs, the member with kidney disease died sooner.

In contrast to the picture of inflexibility noted above, Gerhardt (1990), reported that families coping with end-stage renal failure can restructure and redefine members' role as a means of family adjustment to serious chronic illness.

Cardiac rehabilitation. In an interesting study of aiding families' coping in cardiac rehabilitation, Dimsdale (1978) describes the classification of four effective coping strategies: Denial, group affiliation, information gathering, and optimism.

According to the author, while endowed with negative connotations in many other therapeutic settings, denial can be of value in allowing families to achieve the delicate balance between information overload versus obtaining helpful information in a timely manner. Optimism as a coping skill can help prevent a contagious fatalistic view of the cardiac patient's future (Dimsdale, 1981).

One common strategy families use for coping with the impact of disease is problem-focused, i.e., asking for information about the illness and its treatment (Lipowsky, 1970; Moos & Tsu, 1977). According to Farber, Weinderman, and Kuypers (1985); Moos and Tsu (1977); and Turk (1979), seeking information resulted in better overall adjustment and less anxiety for chronically ill persons and their families. In talking with others, families developed an awareness and perspective concerning their predicament.

Burgess et al (1987) conducted another study in which patterns of family support were found to be a major influence in cardiac rehabilitation. During hospitalization, two groups of cardiac patients were assigned to experimental and control conditions; the

former received psychosocial intervention while the latter received the usual and customary hospital care. Findings indicated that the experimental group was significantly less stressed and less dependent during rehabilitation.

Family perceptions of counseling and coping.

Walls and Masson (1978) conducted a study of client/family communications of 105 vocational rehabilitation clients and significant other family member pairs to determine factors and perceptions contributing to discussion of conflicts and disability related problems. Significant findings revealed the least amount of discussion about problems was reported for more educated clients and significant others, for clients who were not allowed to perform tasks they were capable of performing, and for clients whose perceptions did not match those of significant others about the disability's effect on marital relations. When perceptions did not match, clients and significant others experienced more frustration and disappointment. Implications of the study point out the disparities between clients' perceptions of successful communication and those of significant others. When

the communication and interaction requirements or needs for full family support exceed the communication skills of the family, the rehabilitation objective can be negatively impacted (Walls & Masson, 1978).

Family involvement in stroke rehabilitation.

Another study concerning family communication, problem solving, and affective involvement was conducted by Evans et al (1987) who investigated treatment adherence and family interaction after stroke. Their study assessed the relationship between treatment adherence and family functioning of 60 caregivers of stroke patients receiving physical therapy in a rehabilitation unit. In this descriptive study, caregivers received pre-discharge education which specifically related to helping patients prevent contractures, communicate, and develop coping skills. Assessment instruments, rating scales and descriptive measures were employed: Higher scores indicated positive adherence. Adherence to treatment was significantly related to affective involvement, communication, and problem solving. Adherence was also significantly related to general family functioning. Related findings suggested that family members supporting adherence to therapy shared a

genuinely invested interest in each other. For those families supporting adherence to treatment, the authors cited improved communication as facilitator of intimacy, discussion of affective issues, and reduced behavior problems (Evans, Williams & Freer, 1988). It was noted that families often coalesce when confronted with chronic illness or disability, a pattern which, if progressive, could later interfere with family functioning by excluding the needs of other family members. The interaction of family adherence to therapy and effective problem solving enables the family to deal with the health care system and stressful situations.

Relationships in diabetic functioning and family dynamics. In Mangee, Connis, Gordon, Herman, and Taylor's (1990) pilot study of the relationship between family dynamics/social support and patient functioning in persons with diabetes on intensive insulin therapy, mixed results were noted; however, the value of social support in patient functioning was clear in that, regardless of the type of therapy, higher levels of total social support were found to be associated with higher levels of psychological and social functioning,

as were improvements in the quality of family life. Results suggested a perpetuating cycle between extreme family dynamics and poor glucose control.

Family/consumer coping in spinal cord injury.

Vargo's (1983) research investigating spousal adaptation to spinal cord disabled men noted the lack of attention to non-disabled family members during medical rehabilitation. Attention that was given, typically, consisted of information provided near the end of the patient's hospital stay. Problems observed in spouses included feelings of emotional isolation, helplessness and frustration, depression, health problems related to worry and disturbed sleep, financial problems, and feelings of being trapped by the situation and full-time burden. Employing a phenomenological method of data collection, each of 10 subjects provided demographic data in a series of interviews at varying stages post injury. A number of adjustment and coping patterns were revealed. Family assistance was noted to be of paramount importance during the hospitalization period. Vulnerability to negative reactions was observed as the wife assumed the role of protector. A theme of control evolved,

restoring some order in their lives and homes. Wives assumed varying degrees of tasks previously performed by their husbands, thereby establishing new routines. During the early months, gaps occurred in communication about feelings, followed by the wife's feelings of passive acceptance, recognition, and acceptance of responsibility. Vargo noted that the impact of the presence of an adequate, functional support system as the single most influential and important factor in wive's adjustment. The importance of early interaction with partners was observed as an essential factor in the rehabilitation counseling of persons with spinal cord injuries. Peer support groups were also of value in helping family members explore feelings and facilitate requests for information and assistance. Vargo also noted the need for follow-up services and periodic reassessment, not only of physical functioning but also of the family's emotional climate.

Influence of perceived family support. Perceived family support was found to be an important factor in Jamison and Virts' (1989) study of chronic pain patients. A comparison between pain patients with

supportive and non-supportive families on behavioral and psychological variables including sleep disturbance, social activity, activity interferences, depression, tenseness, past psychological therapy irritability, and length of time in bed yielded these overall results: Those whose families were described as supportive reported fewer problems at follow-up and showed more treatment benefits in comparison to those reporting non-supportive families.

Vichinsky, Johnson and Lubin (1982) reported similar findings in their survey of 152 adults and adolescents with sickle cell disease. The authors were especially interested in the relationships between support and the occurrence of and responses to painful episodes. They found that less perceived family support was related to more frequent hospital contact and higher narcotic use.

Perceived support is hypothesized to buffer psychological stress. Another view was noted in Kutner's (1987) article in which perceived health status, an index of physical and psychological well-being, did not vary with perceived family support;

however, perceived health status did appear to have important implications for rehabilitation outcome.

In a study of the importance of significant others in predicting diabetic cooperation, Shenkel, Rogers, Perfeito, and Levin (1985-86) found that the involvement of family members was a stronger predictor of behavioral intention than were the patient's own health beliefs. According to these authors, patients consistently intended to comply with dietary restrictions in accord with expectations of family members rather than their own personal attitudes. Although unsuccessful in predicting actual behavior, this study suggested the possibility of enhancing cooperation by involving significant others.

Family Involvement in Long Term Mental Illness and Related Disorders:

This section references seminal research reviews by Hahlweg & Goldstein (1987), Strachan (1986), Lefley (1984), and other studies. Most studies in this section are observational in design.

(Insert Table 2 Here)

Following deinstitutionalization, families have become primary caregivers for the estimated 66% of

persons with long term mental illness who return home. It has been reported that in their efforts to cope, family members experience disruption, increased personal stress, frustration, compassion, guilt, and a sense of helplessness (Spaniol, 1984). They quickly become aware of the need for an opportunity to express their feelings, needs for specific information, and desires for contact with others who understand, both professionals and others sharing common experiences (Wintersteen & Young, 1988). Yet, the literature records families' dissatisfaction and agencies' failure to communicate (Spaniol, Zipple & Fitzgerald, 1984).

Many families do not participate in psychiatric rehabilitation programs. Considering the bewildering demands, costly changes in life style, and the emotional and financial impact accompanying psychotic disorders of a family member (Lefley, 1984), one wonders why. Marlatt (1987) described the family's guilt, despair, and confusion experienced after a member's onset of schizophrenia. She described the process of adjustment as similar to stages of recovery in the death of a loved one. The acceptance required was not that of a death, but acceptance of a person

far different from the one known prior to the onset of the psychiatric disability.

In spite of advances in biological and genetic psychiatric research concerning extreme stressors experienced by families, some family advocates still feel that old prejudices are not yet demolished (Lefley, 1984). The family causation model characterized by schizophrenogenic mothers, marital skew, and double binds in family dynamics remain entrenched stereotypes. Some stereotypical notions about family life in a home where mental illness is present may be derived from misinterpretations of the family interaction research. Hahlweg and Goldstein (1987) presented representative studies concerning interaction processes in families with a psychiatrically disabled member. Findings have evolved into the vulnerability-stress model and the realization that overly sensitive, reactive, emotionally volatile verbal-behavior in family members is a potent stress factor that interacts with a consumer's vulnerability to relapse into psychosis.

In studying the social distance between consumer and professional, Wintersteen and Young (1988) describe

the gap as one resulting from families' feelings that people who have not shared a similar crisis could not be expected to truly understand; also, some families are reluctant to discuss intensely personal problems.

Lefley (1984) described hindrances to family involvement in psychiatric rehabilitation imposed by the autonomy paradigm. The value of independence is stressed and efforts are directed at getting the consumer on his/her feet and back into the mainstream as quickly as possible.

Family involvement has not been readily transferred from hospital settings or rehabilitation centers to private offices of psychotherapists and clinical treatment settings in community counseling centers. In the latter settings, family involvement usually occurs at the onset of treatment or during crises; however, in recent years new approaches to working with families of persons with psychiatric disabilities have developed: A primary focus is on the primary consumer and a working alliance with the family is concurrent.

Failures in communication. Family members' requests for details about treatment may raise ethical

questions about confidentiality. Atwood (1990) describes a model enhancing the patient-therapist-family relationship which involves pre-planning in establishing protocol for dealing with unanticipated requests for information and other potentially intrusive involvement, scheduling of meetings, and managing emergencies via a three-way contract.

Birchwood and Smith (1990) described the problems of professional-secondary consumer engagement in terms of families' perceptions of the ramifications of mental disorder, their reluctance to become involved, and, from the perspectives of agencies facing shrinking budgets and insufficient staff to manage large case loads. These authors commented that if the family perceives intervention attempts as implication of family dysfunction or minimalization of the severity of the consumer's disability, they may resist involvement. These findings are consistent with those reported by families with a physically disabled member (Gonazlez, Steinglass & Reiss, 1987).

Adleson and Freeman (1985) described family interaction through the development of the National Alliance for the Mentally Ill (NAMI), a growing

national coalition of family members whose goals are to promote research and improve mental health services. In sharing experiences, they found that family members needed an open forum type of atmosphere in which they could be passive or sharing once they accepted the group as a safe place where the demands and frustrations of mental illness could be shared and dealt with.

Haas et al (1986) described a controlled study investigating inpatient family intervention (IFI) in combination with pharmacotherapy as a psychosocial intervention oriented toward enhancing compliance. Fifty-four patients, ages 18-45, diagnosed as having major affective disorders were hospitalized and screened for the study. All had family or significant others available for participation. Patients and families were assigned to one of two treatment programs - multimodal hospitalization treatment with IFI and the same hospital treatment (individual supportive, group and activity therapies, and pharmacology) without IFI for the control group. IFI treatment included assisting the family in developing an understanding of the precipitating episode, identifying possible

stressors related to the current cause of hospitalization, clarifying stress-producing family interaction sequences, strategic planning to identify and deal with future stresses, and educating both the primary consumer and family about present and post-hospital treatment.

Results of this research suggested that

> "the addition of a brief, crisis-oriented family intervention to standard multimodal hospital treatment for major affect disorder contributes to improved global patient outcome and greater willingness on the part of the family to accept professional help during the post-hospital phase of continuation treatment" (Haas et al, 1986, p. 1003).

These authors noted an important implication of IFI: The technique can be employed in an early stage in which the family is available and more often interested in obtaining assistance. At that stage, there is potential to significantly increase compliance during hospitalization and may eliminate noncompliance post discharge.

Coping strategies and schizophrenia. Strachan (1986) reviewed research about rehabilitation programs for persons with schizophrenia and observed several commonalities: Demonstration programs in family intervention are practical and straightforward rather

than analytical. Their focus is on developing coping strategies. This focus has evolved as a result of persistent feedback about families' expectations and needs, including needs for specific information about treatment, mental health systems, the effects of neuroleptic medications, emotional support, and the like.

Family psychoeducation. The growing movement toward family involvement in psychiatric rehabilitation is evident in recent literature (Hatfield & Lefley, 1987). New psychoeducation programs offering support in education, family-centered case management, advocacy, self-help, respite care, and financial resources management are available. Strachan (1986) described four programs with differing emphases. Family crisis intervention without offering psychoeducation (Goldstein, Redwick, Evans, May & Steinberg, 1978); multifamily group support and skill-sharing (Leff, Kuypers, Beshowitz, Eberlain-Fries, & Sturgeon, 1982); problem-solving and communication training (Falloon, Boyd, & McGill, 1984); and survival skills and patient management (Hogarty et al, 1986). Each program involved connective communication skills, making

consumers and families feel as if they were not only being heard, but getting answers as well. Reframing was employed to alleviate or eliminate feelings of blame and defensiveness. Also, treatment and families' efforts to be helpful were reframed as "protective" rather than "overindulgent" and deleterious.

Strachan (1986) reviewed other family factors including communication, concrete problem solving, psychoeducation, and medication compliance. He concluded (1) the prognosis for persons with schizophrenia is improved by family psychoeducation in conjunction with antipsychotic medication; (2) the family approach is cost-effective in reducing the number of hospitalizations; (3) a psychoeducation approach is beneficial to all kinds of families; (4) psychoeducation for the family has been successful as a link in the overall comprehensive system rather than a substitute for programs; and (5) a supportive, skill-oriented program can be beneficial when provided in conjunction with family psychoeducation.

Related mental disorders. In the area of services for individuals with brain injury, Kaplan (1988) noted a relationship between a supportive family and

successful vocational outcome. Those receiving encouragement and support from intact family systems were more likely to achieve employment than clients without support (Kaplan, 1988). The need for involving the family in the rehabilitation process has been pointed out by Kozloff (1987) who found that principle caregivers often experience emotional and/or physical debilitation in situations of high levels of family dysfunction, isolation, and stress in long-term caregiving for a family member with brain injury

Families of Alzheimer's patients not only suffer the disruption of a member's serious illness, but also the devastation of a disease designated as untreatable. This disorder presents taxing demands for families due to differing patterns of severity, type, and sequence of changes in the patient's mental functioning, e.g., changes in behavior, mood, and personality. Additional stress and grief are exacerbated by the progressive nature of the disease and, if the patient is a spouse, the eventual loss of the personal support of that spouse. Further, the caregiver must assume extra areas of responsibility once managed by the patient as well as financial

burdens. Savings once set aside for retirement or other needs must be used for medical expenses. The provision of counseling may ease the stress of such obligations. Counseling techniques which help stabilize some behavior can result in improved outcomes within the parameters of Alzheimer's Disease (LaBarge, 1981; Mace & Rabins, 1981).

Family Involvement in Rehabilitation for Psychoactive Substance Abuse Disorders:

Steinglass, Bennett, Wolin and Reiss (1987) present a thorough analysis and synthesis of systematic studies of alcoholism and the family. Findings about families' dysfunctional characteristics such as inflexible roles, rules, routines, and rituals are included in popular self-help literature and television media. Because these are now part of most laymen's knowledge, they will not be included here. Other studies included in this section are salient for rehabilitation programs.

(Insert Table 3 Here)

Sidall and Conway (1988) observed family participation in addictions treatment to be a factor related to successful treatment completion. In a study

of 100 abuse clients during a 24 month period of treatment at Rocco Antenucci Memorial Adult Residential Treatment Center (RAMAR) in Ohio, the authors identified variables associated with client retention and rehabilitation success. Family counseling designed to modify dysfunctional relationship patterns was included in the therapeutic programming. Interactional variables considered were family involvement in treatment and social support networks, including participation of friends and extended family. Participation of siblings not residing with the client and parents residing with him/her were also considered. Results indicated family involvement in treatment was one of four variables significantly related to comparing successful to unsuccessful clients. The social support system was noted to reduce the probability of relapse in that it positively impacted retention and maintenance of treatment continuity in the environment.

Another study of family involvement in treatment of addictions is of interest in terms of their post treatment/rehabilitation phase. Billings and Moos (1983) examined the role of extra-treatment factors -

coping strategies, life stressors, and social resources associated with relapse rate.

From a systems perspective of recovery, concern has focused on the recovery and adjustment of a patient's family because family symptoms of dysfunction may arise in conjunction with the alcoholic's recovery (Paolino & McCrady, 1977). In Billings and Moos' (1983) study, 113 alcoholics and their family members were evaluated after 2 years of therapy. Two groups were identified - one as recovered (N=55) and one as relapsed (N=58). Questionnaires were used to assess a wide range of personal, social, and health-related information, the occurrence of stressful life events, informal social support, and coping responses from adult respondents and adolescent children. In comparing these groups, recovered alcoholics were functioning as well as the controls though reporting fewer social contacts and somewhat more anxiety; relapsed alcoholics were found to be more dysfunctional than the recovered alcoholics or the controls. In examining how recovery influences the family, spouses of relapsed alcoholics reported more mood-related dysfunction. Overall results of the study indicated

recovery did not generally have negative effects on family members' functions as previously theorized. Implications were that the benefits of recovery carried over to family members (Billings & Moos, 1983).

Developmental Disabilities:

Studies in developmental disabilities have been, for the most part, descriptive in nature.

(Insert Table 4 Here)

In an illustration of the benefits of family support intervention, Singer, Irvin, Irvin, Hawkins, and Cooley (1989) presented an evaluation of multi-element parent and family support intervention for parents with children having severe disabilities. Previous research indicated that parents of disabled children report more severe symptoms of anxiety and depression than parents with normal children because of taxed financial resources, the requirements of physical care, and social isolation.

Fossen (1983) emphasized the various needs of families with children who have disabilities at different stages of life. First, there may be the shock of being unprepared for a disabled child, an "initial stage of crisis in which adequate, supportive

action would be very welcome." According to Fossen, followup is important in assessing and providing for various types of needs - coping with economic aid, practical help from the community, isolation and the tendency to sink into feelings of despair and helplessness.

Though not consistent across studies, Dorner (1975) and Bristol, Schopler, and McConnaughey (1984) cited reports that a single parent may be more likely to be the head of families of children with disabilities. These families experience increased rates of separation and divorce before the children reach six years of age. Furthermore, research suggests that single parents of handicapped children may provide less environmental stimulation for these children (Allen, Applect, McGrade & McQueeney, 1984) and may turn to institutionalization (Appel & Tisdall, 1986).

Previous research has shown that a positive interpersonal family climate predicts social adjustment and that parental support and encouragement of independence and education predicts positive adjustment in school (Nihira, Mayers & Mink, 1980).

With the objective of evaluating the role of support services in alleviating parental depression and anxiety, 49 parents of moderate-to-severely handicapped children, ages 3 to 14, from an urban area were randomly assigned to intensive or less intensive support interventions. Those in the former group received case management and respite care services plus assistance from community volunteers as well as 16 weekly classes in coping skills. The authors perceived problems in coping as indicators of deficient environmental resources or personal skill deficits rather than pathology.

Four types of measures were used in evaluation of the benefits of support services - descriptive, outcome, process, and social validation. Singer, Irvin, Irvin, Hawkins, and Cooley (1989) commented that mothers receiving a combination of services, i.e., behavioral parent training and stress management training, showed less anxiety and depression. These benefits continued to be evident at a one-year followup.

Bristol (1987) suggested a need for research in whether single parents of nonhandicapped children are

more or less likely to receive child care assistance and if assessments can be developed to identify and include non-family and multiple participating family members in single and two-parent families. Bristol also recommends longitudinal study to avoid distorted pictures of family adaptation and focus on identification of those variables associated with beliefs, coping strategies, and resources that differentiate family type.

DISCUSSION

Empirical investigations of family factors in relationship to adjustment to chronic illness and disability have been relatively rare compared to studies of individual adjustment.

Although the literature is replete with anecdotal reports describing persons who have, are, or will benefit from specific family rehabilitation strategies, there are few systematic well-controlled studies. For the most part, these studies have not elucidated the mechanisms by which support factors operate.

Several serious problems with the empirical literature need to be resolved:

First, most studies suffer from inadequate conceptualization of social support. In some studies, support is wholly inferred from situational scenarios. Definitions of social support speak to the process of reciprocity, the giving and receiving of information, aid, or affection. Studies reviewed above did not address this issue of exchange. One is left to wonder if those clients or families who felt unsupported did so because (a) they were not getting what they wanted/needed, (b) they were not asking for what they wanted/needed, (c) they were not giving what their family members wanted/needed, or (d) they were seeking support from persons incapable of responding. More research is needed in this exchange area.

Second, few studies have developed reliable or valid indicators of the concept. This imprecision has resulted, in some cases, in questionable findings that confound family support and factors unrelated to interpersonal ties; financial stability is one such example.

How family support facilitates adjustment to disability or what aspects of support are the most effective buffers against life changes brought about

with the onset of severe disability or chronic illness are yet to be determined. More has been learned about those family characteristics that negatively impact adaptation than those that facilitate it. The onset of severe disabilities such as spinal cord injury or head trauma, almost by definition, can bring about changes in functional support; such an event can cause relatives or friends to rally to the person's aid while others fade into a proverbial sunset. In such a scenario, support becomes both an indicator of change in social support as well as a product of the occurrence of disability. Such confounding may bias results in favor of interactive rather than direct effects of family support on rehabilitation outcomes and measures of functioning.

Third, part of the difficulty encountered in reviewing this research is that many studies used social support instruments unique to their respective inquiries. This complicates comparability across studies. During the past decade, a number of social support questionnaires with good psychometric properties have been developed (Norbeck Social Support Questionnaire, Social Support Questionnaire, Provision

of Social Relations, Interview Schedule for Social Interaction, Feetham Family Functioning Survey). Some are directly applicable, or at least adaptable, to populations of persons with disabilities. To benefit future rehabilitation research in family support, use of these tools is indicated.

Studies reviewed herein suggested that different categories of providers of support (peers, families, self-help groups, and professionals) have an impact on adjustment and outcome. Taking into account providers as well as functions of support in future studies would permit examination of the interactive effects of support. Findings, in turn, would yield better understanding of which kinds of support from whom have more lasting influences at what stages of rehabilitation. More careful analyses and interpretations of the conditions under which certain types of support and relationships do or do not impact given indicators of rehabilitation outcomes are clearly needed.

The types and sources of family support that have been examined have differed so widely that one cannot yet generate a coherent theory about the conditions

under which family support facilitates either adjustment or adaptation to disability or to rehabilitation outcomes.

FUTURE DIRECTIONS FOR RESEARCH, POLICY, AND PROGRAM INNOVATION

An individual's adaptation to disability and subsequent community adjustment are recognized to be a biopsychosocial phenomenon. Yet the extent to which rehabilitation services can be expected to compensate for or override deficiencies in psychobiologic, psychosocial, and environmental domains remains an issue for counselors and policy makers alike.

Who can provide the most effective support to whom, under what conditions, depends upon the particular person-situation interaction.

Systematic studies of the efficacy of family centered versus client-centered rehabilitation have not been conducted. Nevertheless, the reported clinical experiences indicate potential advantages to integrating family-centered services within a client's rehabilitation program. Some evidence indicates that such an approach may enhance client participation in rehabilitation interventions. The empirical studies

reviewed herein, along with previous research, have demonstrated clearly that the complex problems associated with adjustment and outcomes in the rehabilitation of persons with disabilities are inherently multidimensional in nature. This should encourage researchers to seek better ways to synthesize, to empirically test fundamental principles implicit in interactional models from the systems sciences.

This paper has surveyed four categories of studies relevant to the notion that rehabilitation outcomes are capable of being influenced by supportive family involvement and participation in the rehabilitation process. Many of the available studies suffer from methodological problems that reduce the confidence attachable to their findings. And, linkages between the support-outcome relationship remain remarkably nonspecific. Nevertheless, there is considerable evidence to suggest that rehabilitation programs, interventions, and strategies aimed at improving this psychosocial side of rehabilitation can form an appropriate research and policy agenda for the future.

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Table 1: Family Support-Rehabilitation Outcomes in Chronic Illness and

SOURCE	FOCUS	SUBJECTS (NO.)	METHODOLOGY
Walls & Masson (1978)	Impact of disability on family relations	105 clients and 50 pairs of sig others	Questionnaire - 2 gr
Reiss, Gonzales, & Kramer (1984)	Impact of family attachment and problem solving characteristics on member with end stage renal disease	23 families - adult with ESRD	Observational, nonra evaluation; factor a
Shenkel, Rogers, Perfeito, & Levin (1985-86)	Family support in enhancement of dietary compliance of persons with diabetes	41 volunteers, age 12+	Observational-nonran intervention; multip analysis
Kaplan (1990)	Emotional distress, perceived social support and vocational outcome in persons with brain injuries	36 adults	Observation study-nor evaluation; correlat
Dumas & Sadowsky (1984)	Family adjustment to blindness	93 (82%) wives of spouses to BVI)	Questionnaire-1 group intervention retrospe frequencies and t-tes
Hurtig, Koepke, & Park (1989)	Psychosocial adjustments of kids with sickle cell disease	70 (ages 8-16)	Observational nonrand intervention; hierarc regression
DeBalcazer, Sukino, Paine, Fawcett & Mathews (1989)	Social support via self-help groups	74 ILC Directors	Survey-2 groups; des ratings
Mangee, Connis, Gordon, Herman & Taylor (1990)	Family dynamics/social support in relationship to symptoms and well being of diabetics	88 adults	Observational cohort, intervention, repeat- ANOVAs
Vargo (1983)	Family support and marital adjustment of wives of spinal cord injured males	10	Structured interview qualitative descript
Jamison & Virts (1989)	Family support and chronic pain	233 supportive	Questionnaire-nonran follow-up post treatm
Lennon, Link, Marbach, & Dohrenwend (1989)	Social relationships, support networks and stigma of chronic facial pain	272 nonsupportive	Questionnaire-factor
Evans, Bishop & Matloch (1987)	Family interaction and treatment after CVA	181 random follow-up	Observational, nonran intervention; correla squares
Moore (1984)	Relationship of family support and attitudes toward blindness in relationship to employment	151	Questionnaire (ex pos randomized
Gerhardt (1990)	Family attitudes toward blindness	73	Ex post facto survey selection
Kutner (1987)	Family flexibility Coping and end-stage renal failure	108	Randomized control tr Psychosocial interven Chi square ANOVA regr
Arnold and Orozco (1988)	Social support among chronically disabled people	108 blind and visually impaired adults	Case studies reconstr Qualitative analysis
Roessler & Bolton (1985)	Factors relating to vocational success	89 experimental	Structured interview Nonrandom descriptive Frequencies
		91 conventional hospital care	Survey nonrandom Descriptive analysis Correlations
		68 married male patients of working age	Structured interview Nonrandom descriptive
		332 disabled persons	
		38 clients	
		57 former VR clients in Arkansas	

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mily Support-Rehabilitation Outcomes in Chronic Illness and Physical Disability

TS (NO.)	METHODOLOGY	MEASURES OF SUPPORT AND/OR OUTCOME	RESULTS
ients and 50 pairs of sig	Questionnaire - 2 groups; ANOVAs	Family communication: characteristics relating to expressed emotion and conflict	Clients and SOs who disagree about impact of disability demonstrate more disruptive family relations
ilies - adult with ESRD	Observational, nonrandom-evaluation; factor analysis	Morbidity and mortality: noncompliance and complications	Shorter longevity for ESRD client whose family "hovered"
unteers, age 12+	Observational-nonrandom intervention; multiple regression analysis	Health intention and health behavior; dietary compliance	Positive expectations of family members re: dietary compliance influenced patients' intentions to comply with treatment regimen
its	Observation study-nonrandomized evaluation; correlations	Perceived support	Persons who perceived more support and satisfaction with the support demonstrated less distress
) wives of spouses to BVI)	Questionnaire-1 group, randomized intervention retrospective; frequencies and t-tests	Impact of orientation and mobility training on family's understanding of adjustment problems	Training facilitates family understanding and adjustment
s 8-16)	Observational nonrandomized intervention; hierarchical regression	Peer relationships, school performance, severity of disease, family perceptions of adjustment	Poorer adjustment attributed to pain and physical functional limitations which, in time, impact psychosocial domain
Directors	Survey-2 groups; descriptive ratings	Importance and satisfaction with group functions	Self-help/support groups are important in facilitating discussion of family relations
its	Observational cohort, nonrandom intervention, repeated measures; ANOVAs	Family dynamics and characteristics (e.g., enmeshment); blood glucose levels; physical functioning, well being, friendships	Enmeshment predicted poorer control of disease; higher levels of family support associated with higher levels of physical and psychological well being, regardless of therapy
pportive	Structured interviews, nonrandom; qualitative descriptions	Commitment to relationship, societal barriers, support system, children, values and lifestyle changes	Presence of support system was most influential factor in ways wives reacted
nsupportive	Questionnaire-nonrandom and random follow-up post treatment	Medical, behavioral, psychological symptoms	Pain patients from less supportive families do less well 1 yr. after treatment; larger support network enhances pain management and adaptation
ndom follow-up	Questionnaire-factor analysis	Pain severity, perceived stigma, social relationships	Support from household members had strong positive association with pain and stigma management, family estrangement and dissatisfaction with support were associated with pain
nd and visually impaired	Observational, nonrandom intervention; correlation; chi-squares	Treatment adherence problem solving communication affective involvement	Family over-involvement and too much concern interferes with levels of autonomy; effective communication and problem solving facilitates intimacy and treatment adherence
rimental	Questionnaire (ex post facto)-randomized	Employment status	Successfully employed persons with BVI report more positive family attitudes and support than the unemployed
ventional hospital care	Ex post facto survey random selection	Gainful employment	The family is a major contributing factor to successful rehab and employment
ried male patients of working	Randomized control trial Psychosocial intervention Chi square ANOVA regression	Stress and dependency on family support, reported deterrents to work resumption	Programs on multiple levels best meet the cardiac patient's needs
abled persons	Case studies reconstructions Qualitative analysis	Illness management versus deviance-mortality	Perceived health status tended to vary with amount of received help
nts	Structured interview Nonrandom descriptive analysis Frequencies	Perceived social support	Significant relationship between 6 months rating of progress and familiar environment scale
er VR clients in Arkansas	Survey nonrandom Descriptive analysis Correlations	Productive relationship and progress rating by counselor	Recommendations for training families to assist and support in job-seeking process
	Structured interview Nonrandom descriptive ratings	Counseling, service needs, social success	

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Table 2: Family Support-Rehabilitation Outcomes in Mental Illness and Relate.

SOURCE	FOCUS	SUBJECTS	METHODOLOGY
Silberfeld (1978)	Symptoms are moderated by presence of social supports	50 psychiatric and 50 family practice female patients	Structured interview re interpersonal relationships 2 groups nonrandom descriptive
Goldwurm, Fernandez, Mastrangelo, Meneghelli, & Vergani (1990)	Impact of increasing duration of training program and adding cognitive family components	Two cohorts (n = 24)	Observational nonrandom intervention descriptive analysis
Haas, Glick, Spencer, Clarkin, Lewis, Good-Ellis, Peyser, DeMane, Harris, Lestelle (1986)	Efficacy of inpatient family intervention	60 major affective disorder patients consecutively admitted to hospital, ages 18-24 available family	Observational nonrandom intervention ANOVA
Schwartz, Spitzer, Muller, Fleiss (1980)	Prediction of outcome of mental and social functioning and service use	119 chronic patients schizophrenia	Observational nonrandom follow Stepwise multiple regression analysis
Marlatt (1987)	Awareness of service needs of persons with long term mental illness and their families	1	Case study
Wintersteen & Young (1988)	Guidelines for professional practice as a group advisor	54 members of family support groups involved as trainers, trainees or control group members	Observational nonrandomized intervention
Levine & Spaniol (1985)	(a) Member-developed information on service delivery programs (b) Issues considered in developing service programs	n = 15 36 family groups who sponsored a community support service program	Survey-nonrandom descriptive qualitative analysis
Adelson & Freeman (1985)	Psychosocial foundation of education and support evolved into a advocacy group	Survey response rate	Case study
Strachan (1986)	Family aftercare intervention programs for schizophrenia	4 family therapy programs Analytic review on families	Research review
Lefley (1985)	Cross-cultural perspective of families of the seriously mentally ill	89 experimental 91 conventional hospital care	Research review
Burgess, Lerner, D'Agostino, Vokonas, Hartman & Gaccione (1987)	Assessment of factors improving return to work		Randomized control trial Psychosocial intervention Chi square ANOVA regression

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TS	METHODOLOGY	MEASURES OF SUPPORT AND/OR OUTCOME	RESULTS
chiatric and 50 family e female patients	Structured interview re interpersonal relationships 2 groups nonrandom descriptive	Difference in participation in social network of psych patients and family practice outpatients, measures of social network	Psychiatric patients found to be relatively impoverished
horts (n = 24)	Observational nonrandom intervention descriptive analysis	Retention of trained behaviors and living skills; ability to generalize same to community settings	Relapse rates diminished by 58% 2/3 decreased positive and negative symptoms Social disability diminished
or affective disorder s consecutively admitted to l, ages 18-24 available	Observational nonrandom intervention ANOVA	Pharmacotherapy psychosocial intervention in recommended post-hospital communication treatment program	Crisis-oriented family intervention contributed to improved global patient outcome and willingness of family to accept help
ronic patients schizophrenia	Observational nonrandom follow-up Stepwise multiple regression analysis	Can characteristics of ATS who will do well be identified re their adjustments in community and environmental conditions? Are the various mental health programs working?	Community care is less expensive than institutional care. Negative family relationships increase chance of rehospitalization
bers of family support groups d as trainers, trainees or l group members	Case study	Extent of participation in family support group, attitudes	Focus of family support movement is concern for better provision of services
ly groups who sponsored a ty support service program	Observational nonrandomized intervention	Opposition to development of community support services under auspices of family mutual support/advocacy organization	Of 57 family groups returning alternate forms, 15 were opposed; 42 groups were newly organized.
response rate	Survey-nonrandom descriptive and qualitative analysis	Discussion of differential attitudes toward families, causal attribution, dependency issues, expectancy levels	Nondefensive attitude of self-direction rather than medical model of "treating the sick."
y therapy programs ic review on families	Case study	Stress and dependency on family support, reported deterrents to work resumption	Future research should aim at understanding crucial family mediating mechanisms which protect the individual from episodes of psychosis
rimental ventional hospital care	Research review		Programs on multiple levels best meet cardiac patients' needs
	Research review		
	Randomized control trial Psychosocial intervention Chi square ANOVA regression		

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Table 3: Family Support-Rehabilitation Outcomes in Psychoactive Substance A

SOURCE	FOCUS	SUBJECTS	METHODOLOGY
Billings & Moos (1983)	Role of extra treatment factors in process of recovery and relapse among treated alcoholics and their families	2 groups of alcoholics and their families recovered group (n = 55) relapsed group (n = 58)	Observational nonrandom intervention longitudinal : post treatment ANOVA, multiple regression analysis
Hater, Singh & Simpson			
West, Husie & Zaraki (1987)	Variables related to long-term follow-up outcomes after treatment for drug abuse	Stratified random sample of 2,295 former clients, 174 opioid addicts (history of daily drug use)	Survey Structured interview Randomized Hierarchical regression ana
	Family patterns of interaction thought to contribute to the maintenance of substance abuse	35 families in which one offspring was hospitalized for substance abuse	Observational Nonrandom intervention Descriptive analysis t-tests

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	METHODOLOGY	MEASURES OF SUPPORT AND/OR OUTCOME	RESULTS
e of alcoholics and their e ed group (n = 55) t group (n = 58)	Observational nonrandom intervention longitudinal follow-up post treatment ANOVA, multiple regression path analysis	Levels of adjustment in non-drinking aspects of functioning, number of social contacts, employment, job changes	Patients who recovered control over drinking also functioned well in non-drinking areas; benefits of recovery extended to family members
ied random sample of 2,295 clients, 174 opioid addicts y of daily drug use)	Survey Structured interview Randomized Hierarchical regression analysis	Predictor sets of personal background, family and religion variables were associated with unique variance in long-term follow-up outcomes	Greater family resources related to favorable outcomes
lies in which one offspring pitalized for substance	Observational Nonrandom intervention Descriptive analysis t-tests	Comparison of patients' and families' real and ideal distance scores	Patients and families were looking for more closeness, or, frequency of involvement.

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Table 4: Family Support-Rehabilitation Outcomes in Developmental Disar

SOURCE	FOCUS	SUBJECTS	METHODOLOGY
Singer, Irvin, Irvin, Hawkins, & Cooley (1989)	Evaluation of parent and family support interventions for parents of school-aged persons	2 groups of parents different levels of support 49 parents	Observational nonrandom intervention comparison gro
Yura, Zucherman, Betz, & Newman (1979)	8 sessions Project designed to assist parents of exceptional children	n = 6	Observation nonrandom inter
Dunst & Trivette (1986)	Mediating influences of social support	137 parents of MR, physically impaired and developmentally at-risk children	Observational nonrandom intervention hierarchial re analysis
Fossen (1983)	Supportive work with parents of disabled children	124 parents	Questionnaire nonrandom des analysis

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	METHODOLOGY	MEASURES OF SUPPORT AND/OR OUTCOME	RESULTS
of parents different f support ts	Observational nonrandom intervention comparison group	Measures of depression and anxiety	Mothers showed significant improvements on measures of depression and anxiety
	Observation nonrandom intervention	Parent's attitudes toward their children; amount and intensity of children's disruptive behavior	Parents had a more positive attitude about children's capabilities to cope with life's tasks Children's disruptive behavior decreased in frequency and intensity
nts of MR, physically and developmentally at- ldren	Observational nonrandom intervention hierarchial regression analysis	Effects of social support on personal well-being Parental attitudes toward child, family integrity, parental perceptions of child functioning	Satisfaction, work support and number of support sources had main and/or interactive effects
nts	Questionnaire nonrandom descriptive analysis	Parents' evaluation of information and treatment	Needs vary at different stages of life Close followup at initial crisis important for future coping

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